

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1-45 are pending in the application.

Applicant initially thanks the Office for its detailed analysis, yet most
5 respectfully requests that the Office reconsider its rejections.

Claim Rejections under 35 U.S.C. §103

Claims 1-45 are rejected under 35 USC 103(a) as being unpatentable over Nussbaum (US 6779154, filed Feb 2000, hereinafter "Nussbaum"), in view of
10 Crandall, SR. et al (US 20020198935, published Dec 2002, hereinafter "Crandall"). Applicant respectfully traverses the rejections.

Before discussing the substance of the Office's rejections, the following discussion of Applicant's disclosure as well as the Nussbaum and Crandall references is provided in order to respectfully point out patentable distinctions
15 between Applicant's claimed subject matter and the cited references.

Applicant's Disclosure

The description provided in this section is provided to assist the Office in appreciating the subject matter described in Applicant's specification. The
20 description is not intended to be used to imply or impose specific limitations with regard to Applicant's claims.

Perhaps a good place to start to gain an appreciation of the claimed subject matter is in Applicant's "Background" section. There, the "Background" section describes that in some applications, in order to edit an XML data file, a user

typically must interactively install a solution software application used to access, view, and edit the data file. When the user is online, the user's computer can run a host application capable of accessing the Internet, such as Microsoft® Internet Explorer®, which can silently discover and deploy a solution, which can be 5 written in XSLT, where the solution enables the user to author and access an XML data file. Alternatively, some XML files can be directly viewed in an Internet browser so that a specific application may not be needed for this specific purpose.

An application and/or information to be put into XML data files can be collected electronically using, for example, Internet (e.g., web) or online electronic 10 forms. Tools for using the electronic forms must be custom built applications or must use proprietary electronic forms tools. Using these custom applications and proprietary electronic forms tools causes at least *four significant problems*. The first problem is that the process of gathering information electronically can be inefficient. Inefficiencies occur for several reasons. One reason is that data entry 15 personal can provide inconsistent data. Data inconsistencies occur where information is missing or provided in different formats. As such, those responsible for gathering, analyzing or summarizing the data must go back and reconcile the information provided. Another data inconsistency occurs because people provide information to one person who then inputs the data into some sort of electronic 20 form or tool. Because the data has to be re-typed by someone who isn't the subject matter expert, this process leads to inaccurate data and to an inefficient data gathering process.

A *second* problem with using custom applications and proprietary electronic forms tools is that the resultant electronic forms or documents aren't

very easy to use and can be extremely inflexible. Many conventional electronic forms do not provide a rich, traditional document editing experience. Without tools or features such as rich text formatting and spell checking, these forms can be hard to use. And as a result, people don't use them as frequently as they should

5 – leading to loss of invaluable organizational information. Additionally, conventional electronic forms are static in nature, where users have to fit their information into a set number of fields and don't have the ability to explain the context behind the information. What this means is that the information provided is often incomplete. As such, the person who consumes the information has to go

10 back to the users to find out the real story behind the data.

– A *third* problem with using custom applications and proprietary electronic forms tools is that they require considerable expense in order to build a solution that enables a user to author and access data using an electronic form or document corresponding to the solution. Such conventional electronic forms or documents

15 can be difficult to modify because they were built for a specific purpose and required development work. Validation of data entered in conventional electronic forms for documents requires a developer to write code or script. Additionally, data entry personnel must be trained on how to use the conventional electronic forms for documents. *Fourth*, once the data is collected for an organization using

20 the conventional electronic forms, the data is difficult to re-use or re-purpose elsewhere in the organization because the collected data is locked into proprietary documents and data formats. To reuse this data, the organization must invest in significant development work to extract the data from the appropriate sources and

translate the data from one format to another. *Specification*, paragraphs [0005]-[0009] (emphasis added).

Accordingly, in one implementation, instructions are received to open an eXtensible Markup Language (XML) document. The XML document is searched

- 5 to locate a processing instruction (PI) containing a href attribute that points to a URL. The solution is discovered using the URL in the PI. The XML document is opened with the solution. The solution includes an extensible stylesheet language (XSLT) presentation application and a XML schema. The XML document can be inferred from the XML schema and portions of the XML document are logically
- 10 coupled with fragments of the XML schema. The XSLT presentation application is executed to render a Hypertext Markup Language (HTML) electronic form containing data-entry fields associated with the coupled portions. Data entered through the data-entry fields can be validated using the solution. *Specification*, Summary.

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The Nussbaum Reference

Meanwhile, the Nussbaum reference describes an application server that executes voice-enabled web applications by runtime execution of extensible markup language (XML) documents that define the voice-enabled web application

- 20 to be executed. The application server includes a hypertext markup language (HTML) conversion module configured for translating information present during runtime execution of an XML document into an HTML document. The system converts the XML document into an HTML document in a manner that is reversible, where all the information from the original XML document is

preserved such that the HTML document can be converted back to the original XML document. In addition, the system supplies HTML-compliant formatting information to specifically identify formatting specifications for XML tags having implied formatting characteristics during runtime execution of the XML

5 document. Moreover, the system generates HTML-compliant reference tags for each XML tag that refers to another XML object, based on the context of the XML tag during the runtime execution of the XML document. Hence, the generated HTML document includes all information used during runtime execution of the XML document, enabling the use of web analysis tools to analyze XML-defined 10 applications by analyzing the HTML document for the structure of the XML document relative to other XML documents used to define the XML-defined application. *Nussbaum*, abstract (emphasis added).

The Crandall Reference

15 Finally, Crandall discusses validating fields of a form in a client-server transaction, wherein a form is received by the server having one or more fields associated therewith. Input data are received from the client and associated with the fields of the form, once the input data are received on the server, or within the fields of the form, it is validated. Moreover, a method of processing a form during 20 a client-server transaction is provided wherein a client-server connection is established between a client and a server. Next, input data from the client are received and associated with a first field of a form. The input data are validated before permitting the client to provide additional data associated with a second field of the form. Further, a method of processing a shipping form is provided

wherein a shipping form is received on a server. The form has one or more modifiable fields. Input data inserted by the client into one or more the fields are interactively validated as provided by the client. *Crandall*, abstract.

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The Claims

Claim 1 recites a method comprising (emphasis added):

- receiving an instruction to open an eXtensible Markup Language (XML) document;
- *searching the XML document* to locate a processing instruction (PI) containing a href attribute that points to a URL;
- *discovering a solution using the URL* in the PI;
- *opening the XML document with the solution*, wherein:
 - the solution includes an extensible stylesheet language (XSLT) presentation application and a XML schema;
 - the XML document can be inferred from the XML schema; and
 - portions of the XML document are logically coupled with fragments of the XML schema;
- executing the XSLT presentation application to render a Hypertext Markup Language (HTML) electronic form containing data-entry fields associated with the coupled portions.

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In making out a rejection of this claim, the Office states that Nussbaum teaches all of the elements of claim 1, including “searching the XML document to locate a processing instruction containing a href attribute that points to a URL; discovering a solution using the URL in the processing instruction; [and] opening

the XML document with the solution". *Office Action of 08/23/06*, p. 2. The then states that Nussbaum "does not expressly teach...opening the XML document with the template that includes an XSLT." *Id.* at p. 3. Applicant agrees that Nussbaum contains no such teaching. The Office then states, however, that

5 Crandall teaches this claim element, and that it would have been obvious to one of ordinary skill in the art to combine these teachings. According to the Office, such motivation exists by virtue of "providing the *benefit of interactively and efficiently* validating electronic files written in specific data markup languages (Crandall, para 13) and *fixing the problem* that XML document lacked the capability of

10 specifying URLs as found in HTML documents (Nussbaum, col 2, lines 66-67).

Id. at p.3-4 (emphasis added).

Applicant very respectfully traverses the rejection and submits that the Office fails to state a *prima facie* case of obviousness for at least three reasons: (1) Nussbaum fails to teach a group of elements for which it is cited; (2) Nussbaum

15 fails to teach a single element for which it is cited, and (3) the Office's stated motivation simply consists of a statement that the combination of references would result in an efficient system, which fails to rise to the level of motivation needed to sustain a *prima facie* case.

First, Applicant respectfully submits that the Office fails to state a *prima facie* case obviousness, as Nussbaum fails to teach a group of elements for which it is cited. In particular, Nussbaum fails to teach or suggest "searching the XML document to locate a processing instruction (PI) containing a href attribute that points to a URL; discovering a solution using the URL in the PI; [and] opening the

XML document with the solution", as recited in Applicant's claim. (emphasis added).

Careful analysis of the cited sections of Nussbaum highlights this fact. Applicant respectfully directs the Office's attention to the Nussbaum's col. 7, lines 8-29, a portion of which the Office cites in the current Action. In discussing this passage, the Office states that Nussbaum teaches a "context module [] configured for generating linking information within the application runtime for an XML object referenced within a given XML page, including generating a URL that specifies the location information (col 7, lines 8-16) which the [Office] interprets as equivalent to the claimed searching limiting containing an href". Meanwhile, Applicant reproduces the passage itself immediately below:

The context module 52 is configured for generating linking information within the application runtime environment 24 for an XML object referenced within a given XML page. In particular, the *context module 52* gathers transient context information used during execution of the XML document by the application runtime environment 24, and *generates a universal resource locator (URL) that explicitly specifies the location information for a referenced XML object* based on the corresponding transient context information. *For example, the context module 52 may generate a URL that specifies the location for another XML document stored within the application document database 16: in this case, the URL would actually specify another HTML document that represents the referenced XML document. As another example, an XML object may specify a function call to an identified procedure within the libraries 34: in this case, the URL would actually specify another HTML document that represents the presence of the libraries 34 and having a list of all available procedures, for example indicating the existence of the procedure calls for accessing the services 40, 42 or 44.*

Nussbaum, col. 7, lines 8-29 (emphasis added).

As emphasized above, this passage of Nussbaum discusses a context module 52 that generates a URL that specifies the location information for a referenced XML object. Nussbaum only teaches, however, that this URL specifies the location of another XML or HTML document. Nussbaum's figure 2 further

5 supports this contention and is reproduced below:

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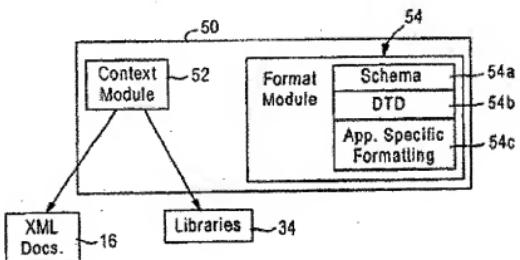


FIG. 2

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As figure 2 displays, the context module 52 links to XML docs 16 and Libraries 34. As such, the URL discussed above only references locations of *other XML or HTML documents*. This is a logical result, as the "context module 52 is configured for generating *linking information* within the application runtime environment 24". Nussbaum, col. 7, lines 8-10 (emphasis added).

20 Applicant contrasts these teachings of Nussbaum with Applicant's claim 1, which recites "*searching the XML document to locate a processing instruction (PI) containing a href attribute that points to a URL; discovering a solution using the URL in the PI; [and] opening the XML document with the solution*". (emphasis

added). Applicant respectfully submits that the Nussbaum fails to teach “searching *the XML document*” to locate a URL, “discovering a solution using the URL”, and “opening *the XML document with the solution*.” At most, Nussbaum teaches generating a URL that specifies *another* document, and as such does not 5 “open[]” the “search[ed]” XML document at all.

Applicant thus respectfully submits that Nussbaum fails to teach this group of claim elements for which it is cited. Furthermore, Applicant respectfully submits that Nussbaum teaches away there from.

For at least this reason, Applicant respectfully submits that this claim stands 10 allowable. Applicant greatly thanks the Office in advance for its reconsideration.

Secondly, Applicant respectfully submits that Nussbaum also fails to teach “*discovering a solution using the URL*”, as recited in Applicant’s claim. (emphasis added). As discussed above, Nussbaum merely teaches a context module that “generates a universal resource locator (URL) that explicitly specifies 15 the location information for a referenced XML object”. Also as discussed above, this URL either specifies the location of another XML document or another HTML document. Nussbaum therefore merely teaches a URL that specifies the location of another document. The location of another document is not a “solution”. As such, Nussbaum entirely fails to teach or suggest “*discovering a 20 solution using the URL*”, as recited in Applicant’s claim. (emphasis added).

For at least this additional reason, Applicant respectfully submits that this claim stands allowable. Applicant greatly thanks the Office in advance for its reconsideration.

Thirdly, Applicant respectfully submits that the Office's stated motivation to combine the references fails to rise to the level necessary to sustain a *prima facie* case of obviousness. For support, Applicant directs the Office's attention to a paper provided by the Office and available at the following URL address:

5 <http://www.uspto.gov/web/menu/busmeth/busmeth103rej.htm>

This paper describes proper and improper rejections made under 35 U.S.C. §103(a), according to the Office. Particularly instructive is an example that appears in Section V of the paper illustrating an improper §103(a) rejection based 10 upon hindsight in view of a general motivation statement. This example is reproduced below in its entirety for the Office's convenience:

V. Examples of Improper Rejection under 35 U.S.C. 103

15 Example 17: Improper rejection based upon hindsight - general motivation statement.

a. The claimed invention

20 The invention is drawn to a smart card containing a tracking mechanism, which tracks shopping preferences of consumers by recording the type, quantity, and dates of purchase for a pre-selected group of products. The smart card is useful in a system and method for introducing new and alternative products that are of the same type as products normally purchased by the shopper. The smart card records the shopper's purchases and submits an automatic notification to the shopper when a quantity threshold is achieved for the pre-selected products. This notification will 25 encourage the consumer to consider alternative products by providing the consumer incentives, such as a pricing discount, to purchase an alternative product.

Claim 1:

A method for using a smart card in a marketing analysis program designed to introduce new products, the method comprising the steps of:

storing product information on the smart card when said products are purchased by a consumer wherein said information including type, quantity and dates of the product purchased;

identifying for each product a threshold for each of said type, quantity and dates of products purchased;

determining an incentive for an alternative product based on said threshold; and

automatically notifying said consumer when said threshold is reached for a given product identified on the smart card and providing the consumer with said incentive, whereby the incentive encourages the consumer to consider alternative products.

b. Evidence

Reference A discloses smart card that tracks consumer preferences by recording the type, quantity, and dates of purchase of pre-selected products to determine trends in consumer purchases. The smart card is periodically read by a scanner to determine its contents for market analysis. In return for using the smart card and participating in the marketing program, the user is provided with free product coupons for products that are normally purchased by the shopper.

Reference B discloses a traditional consumer incentive program that provides coupons for the purchase of named products based upon the consumer's purchase of those same products to promote customer loyalty.

c. Poor statement of the rejection

Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over Reference A in view of Reference B. Reference A discloses the conventional use of a smart card to track consumer preferences and provide incentives. However, Reference A does not disclose the automatic notification to consumer providing incentives. Reference B discloses providing incentives to consumers to purchase the desired products. It would have been obvious to combine Reference A's smart card with Reference B's incentive to consumers because the combination would allow Reference A's smart card to be more efficient.

d. Analysis

With this in mind, Applicant respectfully addresses the motivation stated by the Office in the current Action. Here, the Office states that it would have been 15 obvious to combine the references' teachings by virtue of "providing the *benefit of interactively and efficiently* validating electronic files written in specific data markup languages (Crandall, para 13) and *fixing the problem* that XML document lacked the capability of specifying URLs as found in HTML documents (Nussbaum, col 2, lines 66-67). *Office Action of 08/23/06*, at p.3-4 (emphasis 20 added).

Applicant respectfully submits that the proffered motivation of “efficiency” and “fixing the problem” fails to rise to the level necessary to sustain a *prima facie* case of obviousness. In fact, Applicant submits that such motivation has been explicitly rejected by the Office itself in Example 17 reproduced above.

25 For at least this additional reason, Applicant respectfully submits that this
claim stands allowable. Applicant once more sincerely thanks the Office in
advance for its reconsideration on the rejection.

Claims 2-20 depend from claim 1 and, as such, the remarks made above in regards to claim 1 apply equally to these claims. The rejections of these claims are also improper as failing to disclose these claims' own recited features which, in

combination with those recited in claim 1, are not shown to be taught or suggested in the references of record.

Claim 21 recites a method comprising:

- 5 • receiving an instruction to open a XML document;
- 10 • searching the XML document to locate a processing instruction (PI) having a name;
- 15 • examining the name of the PI to assess the likelihood that the PI includes a solution identifier for the solution; and
- 20 • when the likelihood exceeds a threshold, discovering a solution using the name in the PI;
- 25 • opening the XML document with the solution, wherein:
 - the solution includes a XSLT presentation application and a XML schema;
 - the XML document can be inferred from the XML schema; and
 - portions of the XML document are logically coupled with fragments of the XML schema;
- 30 • executing the XSLT presentation application to render an HTML electronic form containing data-entry fields associated with the coupled portions.

In making out a rejection of this claim, the Office uses reasoning identical to that discussed above in regards to claim 1. Applicant therefore respectfully traverses the rejection for at least the reasons discussed above in regards to claim

1. For instance, Applicant submits that Nussbaum fails to teach or suggest
- 35 “receiving an instruction to open a XML document; searching the XML document to locate a processing instruction (PI)...discovering a solution using the name in

the PI....[and] opening the XML document with the solution". In fact, Applicant respectfully submits that Nussbaum fails to teach or suggest "opening the XML document with the solution" at all. Finally, Applicant respectfully submits that the Office fails to state a motivation to combine the references with the requisite specificity.

5 For at least these reasons, Applicant respectfully submits that this claim stands allowable.

Claims 22-25 depend from claim 21 and, as such, the remarks made above in regards to claim 21 apply equally to these claims. The rejections of these 10 claims are also improper as failing to disclose these claims' own recited features which, in combination with those recited in claim 21, are not shown to be taught or suggested in the references of record.

Claim 26 recites a method comprising:

- 15 • receiving an instruction to open a XML document;
- searching the XML document to locate a processing instruction (PI) having a target that includes the character string that identifies an application used to create an HTML electronic form associated with the XML document;
- 20 • examining one of a URL or an URN in the PI to assess the likelihood that the PI includes a solution identifier for the solution; and
- 25 • when the likelihood exceeds a threshold, discovering a solution using the one of a URL or an URN;
- opening the XML document with the solution, wherein:
- 30 ○ the solution includes a XSLT presentation application and a XML schema;

- the XML document can be inferred from the XML schema;
and
- portions of the XML document are logically coupled with
fragments of the XML schema;

5 • executing the XSLT presentation application to render the HTML
electronic form containing data-entry fields associated with the
coupled portions.

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In making out a rejection of this claim, the Office uses reasoning identical to that discussed above in regards to claim 1. Applicant therefore respectfully traverses the rejection for at least the reasons discussed above in regards to claim 1. For instance, Applicant submits that Nussbaum fails to teach or suggest
15 “receiving an instruction to open a XML document; searching the XML document to locate a processing instruction (PI)...discovering a solution using the one of a URL or an URN [in the PI]...[and] opening the XML document with the solution”. In fact, Applicant respectfully submits that Nussbaum fails to teach or suggest “opening the XML document with the solution” at all. Finally, Applicant
20 respectfully submits that the Office fails to state a motivation to combine the references with the requisite specificity.

For at least these reasons, Applicant respectfully submits that this claim stands allowable.

Claims 27-32 depend from claim 26 and, as such, the remarks made above
25 in regards to claim 26 apply equally to these claims. The rejections of these claims are also improper as failing to disclose these claims’ own recited features which, in combination with those recited in claim 26, are not shown to be taught or suggested in the references of record.

Claim 33 recites a method comprising:

- receiving an instruction to open a XML document;
- 5 • searching the XML document to locate a processing instruction (PI) having a href attribute and at least one of a PI version and a product version;
- 10 • discovering a solution using a name associated with the href attribute;
- opening the XML document with the solution, wherein:
 - 15 ○ the solution includes a XSLT presentation application and a XML schema;
 - the XML document can be inferred from the XML schema; and
 - 20 ○ portions of the XML document are logically coupled with fragments of the XML schema;
- 25 • executing the XSLT presentation application to render an HTML electronic form containing data-entry fields associated with the coupled portions.

In making out a rejection of this claim, the Office uses reasoning identical to that discussed above in regards to claim 1. Applicant therefore respectfully traverses the rejection for at least the reasons discussed above in regards to claim

- 30 1. For instance, Applicant submits that Nussbaum fails to teach or suggest “receiving an instruction to open a XML document; searching the XML document to locate a processing instruction (PI) having a href attribute...discovering a solution using a name associated with the href attribute...[and] opening the XML document with the solution”. In fact, Applicant respectfully submits that
- 35 Nussbaum fails to teach or suggest “opening the XML document with the

solution" at all. Finally, Applicant respectfully submits that the Office fails to state a motivation to combine the references with the requisite specificity.

For at least these reasons, Applicant respectfully submits that this claim stands allowable.

5 **Claims 34-36** depend from claim 33 and, as such, the remarks made above in regards to claim 33 apply equally to these claims. The rejections of these claims are also improper as failing to disclose these claims' own recited features which, in combination with those recited in claim 33, are not shown to be taught or suggested in the references of record.

10 **Claim 37** recites a method comprising:

- receiving an instruction to open a XML document;
- searching the XML document to locate a processing instruction (PI) having a href attribute and at least one of a PI version and a product version;
- discovering a solution using a name in the PI that is associated with the href attribute;
- opening the XML document with the solution, wherein:
 - the solution includes a XSLT presentation application and a XML schema;
 - the XML document can be inferred from the XML schema; and
 - portions of the XML document are logically coupled with fragments of the XML schema;
- executing the XSLT presentation application to render an HTML electronic form containing data-entry fields associated with the coupled portions.

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In making out a rejection of this claim, the Office uses reasoning identical to that discussed above in regards to claim 1. Applicant therefore respectfully traverses the rejection for at least the reasons discussed above in regards to claim 1. For instance, Applicant submits that Nussbaum fails to teach or suggest 5 “receiving an instruction to open a XML document; searching the XML document to locate a processing instruction (PI)...discovering a solution using a name in the PI....[and] opening the XML document with the solution”. In fact, Applicant respectfully submits that Nussbaum fails to teach or suggest “opening the XML document with the solution” at all. Finally, Applicant respectfully submits that the 10 Office fails to state a motivation to combine the references with the requisite specificity.

For at least these reasons, Applicant respectfully submits that this claim stands allowable.

Claims 38-40 depend from claim 37 and, as such, the remarks made above 15 in regards to claim 37 apply equally to these claims. The rejections of these claims are also improper as failing to disclose these claims’ own recited features which, in combination with those recited in claim 37, are not shown to be taught or suggested in the references of record.

Claim 41 recites a computer-readable medium including instructions that, 20 when executed by a computer, perform acts comprising:

- 25 • receiving an instruction to open an XML document;
- searching the XML document to locate a processing instruction (PI) that contains an entity selected from the group consisting of:
 - a href attribute that points to a URL;

- a name;
- a target that includes the character string that identifies an application used to create an HTML electronic form associated with the XML document; and
- a href attribute and at least one of a PI version and a product version;

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- discovering a solution using the entity in the PI;
- opening the XML document with the solution, wherein:

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- the solution includes an XSLT presentation application and an XML schema;
- the XML document can be inferred from the XML schema; and

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- portions of the XML document are logically coupled with fragments of the XML schema;

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- executing the XSLT presentation application to transform the coupled portions of the XML document into an HTML electronic form containing data-entry fields associated with the coupled portions.

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In making out a rejection of this claim, the Office uses reasoning identical to that discussed above in regards to claim 1. Applicant therefore respectfully traverses the rejection for at least the reasons discussed above in regards to claim 1. For instance, Applicant submits that Nussbaum fails to teach or suggest “receiving an instruction to open a XML document; searching the XML document to locate a processing instruction (PI)...discovering a solution using the entity in the PI....[and] opening the XML document with the solution”. In fact, Applicant respectfully submits that Nussbaum fails to teach or suggest “opening the XML document with the solution” at all. Finally, Applicant respectfully submits that the

Office fails to state a motivation to combine the references with the requisite specificity.

For at least these reasons, Applicant respectfully submits that this claim stands allowable.

5 **Claims 42-45** depend from claim 41 and, as such, the remarks made above in regards to claim 41 apply equally to these claims. The rejections of these claims are also improper as failing to disclose these claims' own recited features which, in combination with those recited in claim 41, are not shown to be taught or suggested in the references of record.

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Conclusion

Claims 1-45 are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of the subject application. If any issue remains unresolved that would prevent allowance of this case, the Examiner is
15 requested to contact the undersigned agent to resolve the issue.

Respectfully Submitted,

20 Date: 24-Nov-2006

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